

reexamination and reconsideration of the case, as amended. Each of the rejections levied in the Office Action is addressed individually below.

**I. Rejection under 35 U.S.C. §102(b), as being anticipated by Browne et al. (*Anal. Chem.* 1996).** Claims 1, 6-8, and 13 stand rejected under 35 USC §102(b) as being anticipated by Browne *et al.* (*Anal. Chem.* 68:2289-2295, 1996). Browne *et al.* teach the attachment of fluorescent dyes to an optical fiber to be used as chemical sensors. Examiner states that Browne *et al.* disclose an “intrinsic sol-gel clad fiber optic sensor” which reads on the claimed array of agents attached to an optical fiber. By contrast, the pending claims recite arrays of at least two different proteins or peptides attached to an optical fiber wherein the array has linear organization. In response to the Restriction Requirement in this case, the Applicant elected an array of agents wherein the agents are proteins or peptides; therefore, the claims are drawn to a linear array of at least two peptides or proteins on an optical fiber. Since Browne *et al.* only teach fluorescent organic dyes, Browne *et al.* can not anticipate the presently claimed invention. Applicant submits that Browne *et al.* do not teach or suggest such linear arrays of proteins or peptides on optical fibers; therefore, Applicant requests that the rejection be removed.

**II. Rejection under 35 U.S.C. §103, as being obvious over Browne et al., in view of Pilevar et al., and further in view of Pirrung et al.** Claims 1, 6-8, 10, 11, and 13 stand rejected under 35 U.S.C. §103 as being obvious over Browne *et al.*, in view of Pilevar *et al.* (*Anal. Chem.* 70:2031-2037, 1998), and further in view of Pirrung *et al.* (U.S. Patent 5, 143,854). Applicant submits that the amended claims and the newly added claims are drawn to linear arrays of at least two proteins or peptides attached to an optical fiber as a solid support. The identity/sequence of a particular agent on the fiber can be determined by the agent’s location on the fiber, that is, there is a linear organization to the array of agents on the fiber. Applicant respectfully submits that Browne *et al.*, Pilevar *et al.*, and Pirrung *et al.* even when combined do not teach all the elements of the claimed invention.

As described above, Browne *et al.* only teach an array of fluorescent organic dyes on an optical fiber. Examiner uses Pilevar *et al.* to teach the attachment of fluorophores to an optical fiber through the use of aminopropylsilane. Examiner states that “Pirrung *et al.* specifically

teach that their arrays can be synthesized using optical fibers." However, Pirrung *et al.* at column 14, lines 55-59 only teach that the synthesis may take place on the end of a series of optical fibers *not* along one particular fiber. By contrast, the present claims recite an array of at least two proteins or peptides along an optical fiber. There is no teaching or suggestion to combine the cited references to yield the claimed invention, and even if there were a suggestion to combine these teachings, there is no likelihood of success because Pirrung *et al.* only teach the synthesis of peptides at the ends of optical fibers and the techniques required in synthesizing the agents only *at the end of the fiber* would be substantially different from the techniques needed to attach multiple different agents *along the fiber*. Therefore, none of the references even if combined render obvious linear arrays of *at least two peptides or proteins along an optical fiber* as claimed in the present Application. Applicant submits that the amended claims obviate the obviousness rejection and respectfully requests that the rejection be removed.

In view of the forgoing arguments, Applicant respectfully submits that the present case is now in condition for allowance. A Notice to that effect is requested.

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Respectfully submitted,

  
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Date: February 20, 2002

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on 2/20/02